D A T A S H E E T

PROFESSIONAL, CONNECTED CCTV

The New Digital Sprite 2 provides true flexibility for professional CCTV security solutions. An intuitive interface allows easy local user operation whilst IP connectivity provides remote monitoring and system configuration via Dedicated Micros 'NetVu Connected' software.

High quality recordings are accessible locally to the user at the touch of a button or via powerful GOTO and event recall facilities. Remote operators can utilise the latest MPEG-4 compression technology to view images via NetVu ObserVer or embedded DV-IP Decoders.

The DS2 includes built-in co-axial & twisted pair telemetry to enhance the range of DS2 applications.

Variable alarm configuration allows remote notification of alarms from any single DS2 through a variety of communication channels. Pre-event alarm recording ensures images are captured before the incident occurs whilst on-site communication can be maintained through high quality bi-directional audio.

A built in DVD-R writer provides a quick and easy way of copying key events to DVD or CD on-site while FTP archiving allows evidence transfer over the network, automatically or on demand.

The DS2 provides a self-contained local security solution whilst ensuring that the requirements of remote 24 hour surveillance are met through Dedicated Micros professional 'NetVu Connected' solution deployed over new or existing IP enabled networks.

FEATURES

- **Instant access to high quality recordings**
- **Built-in internal DVD-R (DVD Writer)**
- **Simultaneous MPEG-4 transmission and JPEG recording**
- **Designed for BS-8418 compliance**
- **Simultaneous record, playback, live viewing, archiving and multiple user network viewing with no loss of recording performance**
- **Pre-alarm recording to capture evidence before alarms are triggered**
- **Instant Remote Alarm monitoring using Ethernet or PPP modem link**
- **Dial-out on alarm and alternative signalling path**
- **NetVu Connected**
- **Alarm notification via E-Mail and SMS**
- **Immediate access to any time/date via instant GOTO capability**
- **IP connectivity and remote monitoring functionality**
- **Video motion search allows search back through recordings for movement in a specific area of the image**
- **Web based configuration allows remote system adjustments negating the need for site visits**
- **Multiway DuoVu for live and recorded viewing simultaneously**
- **Multi*Mode* Recording - Dynamically-switchable resolution, record-rate & compression (MPEG4/JPEG) per camera**
- **Text Support – capture, record and search text data with relevant CCTV footage**
- **Real-time alarms can be triggered on suspect transactions using keywords**

NetVu CONNECTED

MultiMode DEDICATED MICROS TransCoding

DIGITAL sprite 2

SPECIFICATION

CAMERAS
6, 9 and 16 camera models available. Auto detection on power up.
Loop through BNC connectors provided for each camera input.
Alarm on Camera Fail

HIDDEN CAMERAS
Option to view all or selected cameras, without affecting cameras recording. Hidden cameras can be viewed via the network.

MONITOR VIEWING
Main monitor (S-Video & Composite):
Full screen, programmable sequence & alarm switching.
Programmable multi-screens: picture-in-picture, quad, 5+1, 4+3, 9 way, 8+2, 12+1,16 way x2 electronic zoom, freeze frame.
Spot monitor: (Composite)
Full screen, programmable sequence & alarm switching.

SEARCH AND PLAYBACK
- One button touch
- Frame advance/rewind, fast picture search and pause keys
- Event list, including event list filter with unique quadrant preview facility
- GOTO time and date
- Playback in full screen and muliti screen
- Simultaneous live and playback on screen

MULTIWAY DuoVu
DS2 has traditionally provided playback in full screen, picture in picture and quad display modes. Now you can choose to playback in any multiway display mode, right up to 16-way. For ultimate flexibility you can now have any combination of live and recorded segments on the multiway view, allowing you to review recorded material, while keeping an eye to ongoing surveillance.

VIDEO MOTION SEARCH FACILITY
Allows the user to search through hard-disk recordings for movement in a particular area of the image, set up on a 16x16 (PAL) cell grid (16x14 NTSC). The unit is then able to search back through the hard drive and create a list of activities for the user to view and archive as required. Searching can also be filtered to limit the search to user-defined times and dates.

MultiMode RECORDING
Multi*Mode* recording gives you the ability to set different record rates, resolutions and compression algorithms across scheduled, normal and alarm modes. Up to 24 **Multi***Mode* Recording profiles can be set per unit, giving you the flexibility to adjust resolution (QCIF to 4CIF), record rates and compression settings (MPEG-4/JPEG) dynamically on individual cameras and across the whole unit.

RECORDING
Playback and record to hard disk simultaneously.
The unit provides the option to continuously archive video and audio data to a FTP server
A choice of hard disk options are available. Please contact customer services in your region or check the website at www.dedicatedmicros.com for further information.
Please note drive sizes may vary from time to time which may result in a larger drive capacity than stated being supplied with the unit.
Protected images:
The system can be configured to protect images from being overwritten permanently or for a fixed period of time, when an alarm is activated. The end user can also manually configure sections of recorded images to be protected from overwrite, and remove protection.

RECORD RATE
The standard Digital Sprite 2 can record real time on 4 cameras at 100PPS(PAL), 120PPS (NTSC).

EXTERNAL RAID DEVICES
We recommend that only DM approved external RAID devices should be used with the DS2 range.
Please contact Technical Support in your region for further information on recommended devices or visit the web site at www.dedicatedmicros.com/support

FLASH DISK OPERATION
To ensure that surveillance and alarm reporting functions are unaffected in the unlikely event of HDD failure, the DS2 has a built-in Flash Disk containing all the essential program and configuration data.

SCHEDULING
Choice of day, night or weekend scheduling offers the ability to automatically:
- Select the cameras to be recorded
- Switch alarms and activity on/off
- Alter the record rate for standard, alarm and activity recording

Activation is via timer or alarm panel link to Alarm input

TIMED EXPIRY
- Timed expiry option allows images to be held for a selected number of days
- Images on the disk which are older than the number of days selected are not accessible

EVENT COPYING
Individual images, event sequences, audio and user defined recorded sequences can be saved to the internal DVD-R drive of DS2.
The DVD or CD images are digitally signed for authentication purposes. Playback of images from the DVD or CD is via a standard DVD-ROM drive (CD-ROM for CD-R media). The DVD/CD playback software will auto-run and does not require the installation of software on the users PC.

DIGITAL AUTHENTICATION
The use of a digital authentication process allows the user to detect whether the image or series of images has been tampered with since it was written to the storage media.

ALARMS
17 normally open/closed alarm inputs available via on board 25 way D-type connection (expandable via up to 16 optional remote alarm modules CIO1).
Up to a total of 8 contacts may be assigned to each camera input. Multiple alarms can trigger one camera and/or 1 alarm can trigger multiple cameras
Options:
- Up to 15 minutes of protected pre and post alarm recording per event
- Protect Alarm images from overwrite for a configurable period of time
- Main monitor display of last alarm camera or all alarmed cameras in sequence or multiscreen
- Trigger telemetry preset on alarm
- Capture additional still image at moment of alarm
- Buzzer activated on alarm
- Light duty relay output triggered via alarm zone
- Instant messaging to remote network client on alarm
- Automatic archive of alarm video and audio to FTP server or DVD-R/CD-R

VIDEO MOTION DETECTION
Programmable 16x16 (PAL) grid (16x14 NTSC) with 5 levels of sensitivity for each camera view.
16 advanced VMD trigger zones with individual sensitivity on a 88x64 (PAL) grid (88x60 NTSC) for each camera.
This is based on standard resolution settings of 720x256 (PAL) and 720x240 (NTSC).
Options:
- Up to 15 minutes of protected pre and post activity recording per event
- Protect VMD images from overwrite for configurable period of time
- Main monitor display of last VMD camera, or all VMD cameras in sequence or multiscreen
- Buzzer activated on VMD
- Light duty relay output triggered on VMD activity
- Instant messaging to remote network client on VMD
- Automatic archive of VMD to FTP server or DVD-R/CD-R

PRE-ALARM
Each camera input can continuously capture a configurable number of images at a user defined pre-alarm capture rate. When an event occurs, the images captured before the alarm event are recorded to disk, allowing the viewer to see enhanced evidence leading up to the event.

FALSE ALARM SUPRESSION
Advanced alarm zones added to DS2 allow you to combine multiple detection sources to minimise false triggers. E.g. you can set an alarm to be triggered by a combination of a PIR and Camera VMD to remove miss-triggers from either source. Added to this, each alarm input can be temporarily disabled by a remote administrator to ensure that faulty detectors do not mask real alarm incidents.

TEXT SUPPORT
Through the inclusion of Text Support, the DS2 can search captured transaction data for specific goods purchased, transaction numbers, credit card references, keywords etc. and jump straight to the associated video sequence. Additional functionality allows alarms to be raised on the use of keywords from POS and other devices. Search and playback is also supported through NetVu ObserVer.

INSTANT ALARM REPORTING
The system can dial-out on alarm to a remote site to provide instant alarm notification.
- Instant alarm reporting
- Dial-out on alarm
- Alternative signalling path

E-MAIL & SMS NOTIFICATION
Emails can be sent on alarm or other critical events.
Notifies the following events on a camera by camera basis:
- Alarm
- Activity
- Camera fail
- Power up

Access to mail server via Ethernet or dial-up is required for this feature.
Short Message Service texts (SMS) can also be sent to a specified mobile phone number, via an SMS capable modem.

AUDIO
The user has the option to record and play back audio through the unit in real time. Recorded with images, audio can be played back directly from the unit via powered external speakers.
The system can also receive audio from a remote network viewer and play it directly out of the unit for audio challenge or help point applications.
Recorded audio is automatically copied when video is archived to DVD-R/CD-R or exported across a network.
Connections:
Line in: 47K. input impedance, 1V pk-pk, RCA phono socket
Line out: 1V pk-pk, RCA phono socket

NetVu Connected
DS2 now has NetVu technology built-in to ensure maximum compatibility with future developments in networked security. NetVu technology enables the new DS2 to fully interoperate with other NetVu compatible products from DM including the DV-IP Decoder, NetVu ObserVer and PDA Viewers. Providing interoperability between the worlds leading security companies, NetVu uses industry standard networking protocols supported by a wide range of third-party integration products and SDKs to ensure on-going compatibility for
the future.

WEB BASED CONFIGURATION
Web based configuration enables system adjustments to be made remotely to a networked unit, such as change the record rate, set up the advanced VMD grids, program presets and more – without the need for a site visit.

NETWORK CAPABILITIES
A standard Ethernet connection allows live and recorded viewing on a networked PC using DM's NetVu ObserVer software or via web pages using a standard Internet browser. Network viewing is independent and does not affect the recording or local operation. The Digital Sprite 2 includes a network bandwidth limitation option, which allows the bandwidth used by the Digital Sprite 2 to be capped. For low bandwidth remote network links, viewing applications can request that video is sent in MPEG-4 format, while local network viewers can simultaneously view using high quality JPEG images.

NetVu ObserVer software and Web page features include:
- Live full, quad, 6, 9 and 16 way screens
- VCR style fast forward and rewind, playback and frame advance/ rew
- GOTO time and date
- File export of digitally signed images over the network to the user's PC using NetVu software
- Archived images can be viewed using DM's NetVu ObserVer software, supplied with the product and as a free download from the DM website
- Remote manual control of relay output on the unit
- Telemetry control, including PTZ and telemetry presets
- Multiple user access
- Event log
- Network viewing is also available for Mac OSX and Linux

See the latest NetVu ObserVer datasheet for more information.

COLOUR RESOLUTION
Sampling rate: 13.5 MHz to CCIR 601
Number of pixels: PAL 720h x 512v
NTSC 720h x 448v
16.8 million colours 256 levels of grey, 8-bit luma.

COMPRESSION
Standard JPEG format files with user definable compressed image size for high quality recording.
Simultaneous MPEG-4 network streams for low bandwidth remote viewing or background recording.

LANGUAGES
English, French, German, Spanish, Italian, Russian, Czech, Polish, Dutch, Hungarian and Swedish.

DATA
NET - RJ-45 10/100 Ethernet connection.
485 BUS - 2x MMJ ports for DM 485-BUS accessories.
SERIAL 1 - 9 way (Male) D Type RS 232 serial port.
SERIAL 2 - 9 way (Male) D Type RS 232 serial port.
BUS A - RS-232 serial port or RS-485 telemetry port 1.
BUS B - RS-232 serial port or RS-485 telemetry port 2.

DVD-R
Built in slim-line DVD-R writer for DVD-R and CD-R Media.

TEMPERATURE RANGE
Operating temperature 5 – 40ºC (41 – 104ºF).

RELATIVE HUMIDITY
10% - 85% Non-condensing.

DIMENSIONS
DVR: 89mm (H) x 440mm (W) x 445mm (D)
3 1/2 " (H) x 17 5/16" (W) x 17 1/2" (D)
Optional Keyboard: 65mm(H)* x 410mm (W) x 183mm (D)
(* 100mm including Joystick)
2 9/16" (H)* x 16 1/8" (W) x 7 1/4" (D)
(* 4 1/8" including Joystick)

WEIGHT
DVR: 11.4 kg (25.1 lbs) with built-in PSU.

POWER SUPPLY
DVR: 180W Internal Power Supply
Input Voltage: 100-240 V AC 50/60 Hz.

WARRANTY
3 years warranty including HDDs.

KBS3A - REMOTE KEYBOARD

TELEMETRY DATA

Built-in RS485/Twisted pair protocols provide direct control of the following domes:

- Dedicated Micros Dennard 2040 to Dennard 2060
- JVC TK-C675BE, TK-C676 & TK-C553E
- Ultrak Ultradome™ KD6
- Ademco Orbiter & Jupiter Microspheres™
- GE CyberDome™
- BBV RS485 StarCard
- Bosch/Philips G3
- Ernitec
- Mark Mercer
- Panasonic WV-CS850A, WV-CS854, WV-CW860 external
- Sensormatic SpeedDome™ IV & SpeedDome™ V (with 4-wire RS-422 support)
- Pelco P Spectra II, Spectra III
- Samsung SCC-641
- Vista Power Dome
- Vantage Juno Dome

COAX TELEMETRY

- Dennard
- BBV
- BBV RX100
  (protocol converter for control of major manufacturer's domes)
- Pelco Spectra II & III
  (Please note that patrol modes are not available)

REMOTE KEYBOARD OPTION

Keyboard features include:

- Joystick control of telemetry camera with twist zoom facility
- Wash/wipe, focus, iris, lamps, preset, patrol and auto-pan keys
- Up to 16 DS2 units can be controlled from one keyboard – up to 16 keyboards can be connected to the 485 BUS providing a flexible configuration e.g.: 1 unit can be connected to 16 keyboards
- Onboard LCD identifying connected unit name and number
- May be connected directly or remotely via 485 BUS cabling (please note maximum cabling distance is 1500 meters)

IR REMOTE CONTROL

Provides operator with remote front panel control of single or multiple racked units including:

- The ability to change cameras and camera views
- Search using the GOTO function and review of the event list
- Playback of images from the hard disk

BUILT-IN DVD WRITER RANGE		
6 CAMERA COLOUR DUPLEX WITH DVD-R	100PPS	DS2P 6DVD
9 CAMERA COLOUR DUPLEX WITH DVD-R	100PPS	DS2P 9DVD
16 CAMERA COLOUR DUPLEX WITH DVD-R	100PPS	DS2P 16DVD

COMMON ACCESSORIES	
OPTIONAL REMOTE KEYBOARD	KBS3A
IR REMOTE CONTROL	IR REMOTE
VIDEO SWITCHER	VS16
REMOTE ALARM MODULE	CIO1
RELAY OUTPUT MODULE	CIO2

PLEASE CHECK THE WEBSITE FOR DETAILS OF COMPATIBLE PRODUCTS AND OTHER LATEST DEVELOPMENTS

FOR FURTHER INFORMATION PLEASE CONTACT

DEDICATED MICROS

www.dedicatedmicros.com

The manufacturer reserves the right to change the specification without notice.

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